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TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371		ATTORNEY'S DOCKET NUMBER 22198(2)US
INTERNATIONAL APPLICATION NO. PCT/US2003/039511		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/538,459
INTERNATIONAL FILING DATE 10 Dec 2003 (10.12.2003)		PRIORITY DATE CLAIMED 10 Dec 2002 (10.12.2002)
TITLE OF INVENTION ARTICULATED ELEMENTS AND METHODS FOR USE		
APPLICANT(S) FOR DO/EO/US BOYD, Robert E.; BARTILSON, B. Matt; HANNA, William T.; (see attached continuation page)		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> 1. <input type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. <input checked="" type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input type="checkbox"/> The US has been elected (Article 31). 5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). <p>Items 11 to 20 below concern document(s) or information included:</p> <ol style="list-style-type: none"> 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input type="checkbox"/> A preliminary amendment. 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input checked="" type="checkbox"/> A power of attorney and/or change of address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825. 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Page 1 of 3

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/538,459		INTERNATIONAL APPLICATION NO. PCT/US2003/039511		ATTORNEY'S DOCKET NUMBER 22198(2)US	
20. Other items or information: Photocopy of 371 Formalities Letter, Confirmation No. 3869 (Notification of Missing Requirements...)					
The following fees have been submitted				CALCULATIONS	PTO USE ONLY
21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... \$310				\$	
22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))				\$	
If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0					
All other situations..... \$210					
23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))				\$	
If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0					
Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100					
International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$410					
All other situations..... \$510					
TOTAL OF 21, 22 and 23 =					
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) in an electronic medium or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$260 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$260	\$	
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$ 130.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	- 20 =		x \$ 50	\$	
Independent claims	- 3 =		x \$210	\$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$370	\$	
TOTAL OF ABOVE CALCULATIONS =				\$	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.					
SUBTOTAL =				\$ 65.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
TOTAL NATIONAL FEE =				\$	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
TOTAL FEES ENCLOSED =				\$ 65.00	
				Amount to be refunded:	\$
				Amount to be charged	\$

12/17/2007 MKAYPAGH 00000060 10538459

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- a. ☐ A check in the amount of \$ _____ to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 021266. A duplicate copy of this sheet is enclosed.
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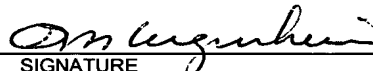
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NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

C. Michael Gegenheimer
Battelle Memorial Institute
505 King Avenue
Columbus, Ohio 43201-2693
USA

Customer No. 24116



SIGNATURE

C. Michael Gegenheimer

NAME

33,387

REGISTRATION NUMBER

12 December 2007

CONTINUATION PAGE FOR PTO-1390

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

Continuation of "APPLICANT(S) FOR DO/EO/US":

FAULKNER, Lynn
HAUBERT, Thomas D.
GEGENHEIMER, C. Michael
STEIN, Holly A.
SCHELHORN, Jean E.
GLEESON, James B.
HOFFMAN PANCAKE, Mary
KELLEY, Brian C.
SMITH, Roger W.
TAYLOR, Kevin M.
ROSENBERG, Dov S.
POLL, Wayne L.



UNITED STATES PATENT AND TRADEMARK OFFICE

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U.S. APPLICATION NUMBER NO. 10/538,459	FIRST NAMED APPLICANT Robert R. BOYD	ATTY. DOCKET NO. 22198(2)US		
C Michael Gegenheimer Battelle Memorial Institute 505 King Avenue Columbia, OH 43201-2693		INTERNATIONAL APPLICATION NO. PCT/US03/39511		
		<table border="1"><tr><td>I.A. FILING DATE 12/10/2003</td><td>PRIORITY DATE 12/10/2002</td></tr></table>	I.A. FILING DATE 12/10/2003	PRIORITY DATE 12/10/2002
I.A. FILING DATE 12/10/2003	PRIORITY DATE 12/10/2002			

CONFIRMATION NO. 3869
371 FORMALITIES LETTER

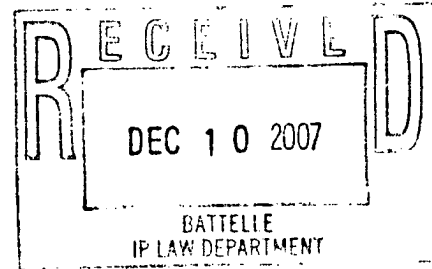


Date Mailed: 12/05/2007

**NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371
IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)**

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated Office (37 CFR 1.494):

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 06/10/2005
- Copy of the International Search Report filed on 06/10/2005
- Preliminary Amendments filed on 06/10/2005
- Information Disclosure Statements filed on 12/04/2006
- U.S. Basic National Fees filed on 06/10/2005
- Assignment filed on 06/10/2005
- Priority Documents filed on 06/10/2005
- Power of Attorney filed on 06/10/2005



The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fees required for this application is \$65 for a Small Entity:

- \$65 Surcharge.

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.

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For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebs>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

FRANCINE YOUNG

Telephone: (703) 308-9140 EXT 215

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
DO/EO/US
CONCERNING SUBMISSION UNDER 35 U.S.C. 371**

In re U.S. National Entry of PCT/US2003/039511)	
)	
Intl. Filing Date: 10 Dec 2003 (12.10.2003))	File No: 22198(2)US
)	
Serial No.: 10/538,459)	
)	
Inventors: BOYD, Robert R. <i>et al.</i>)	Date: 12 Dec 2007 (12.12.2007)
)	
For: ARTICULATED ELEMENTS AND METHODS FOR USE)	

CERTIFICATE OF MAILING

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Dear Sir:

The undersigned hereby certifies that the attached:

Item	No. of Sheets
PTO-1390 Transmittal Letter to DO/EO/US Concerning Submission under 35 U.S.C. 371 plus Continuation page (in duplicate)	8
PTO-2038 Credit Card Payment Form	1
PTO/SB/01 Declaration for Utility Patent Application	7
PTO/SB/81 Power of Attorney...	15
Photocopy of 371 Formalities Letter (Notification of Missing Requirements)	2
Return Receipt Postcard	1

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Brenda Block Koone
Signature

12 December 2007 (12.12.2007)
Date of Deposit

Brenda Block Koone
Battelle Memorial Institute
505 King Avenue
Columbus, Ohio 43201-2693
(614) 424-3298 phone
(614) 424-3864 facsimile
kooneb@battelle.org



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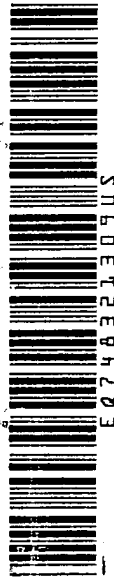


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